

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2002-141077  
(43)Date of publication of application : 17.05.2002

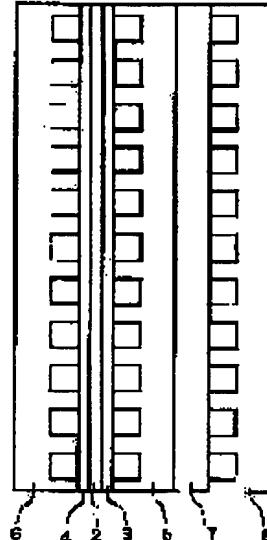
(51)Int.CI.  
H01M 8/00  
H01M 8/10  
H01M 8/24

(21)Application number : 2000-337643 (71)Applicant : SONY CORP  
(22)Date of filing : 08.11.2000 (72)Inventor : SHIRAI KATSUYA

### (54) SOLID POLYMER ELECTROLYTE FUEL CELL AND FUEL CELL STACK

#### (57)Abstract:

**PROBLEM TO BE SOLVED:** To provide a fuel cell of high energy utilization efficiency by utilizing thermal energy as well generated by electrochemical reaction. **SOLUTION:** The solid polymer electrolyte fuel cell 1 is provided with a solid polymer electrolyte film 2, an oxygen electrode 3 and a fuel electrode 4 pinching the solid polymer electrolyte film 2, a field plate 5 on the oxygen electrode side contacting a side face opposite to the one facing the solid polymer electrolyte film 2 of the oxygen electrode 3, a field plate 6 at the fuel electrode side contacting a side face of opposite to the one facing the solid polymer electrolyte film 2 of the fuel electrode 4, a thermoelectric conversion element contacting a side face opposite to the one facing the oxygen electrode 3 of the field plate 5 side, and a field plate 8 for coolant contacting a side face opposite to the one facing the oxygen electrode side field plate 5 of the thermoelectric conversion element 7.



#### LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]